

ABSTRACT OF THE DISCLOSURE

A wireless communications device for a multiple input multiple output wireless communications system includes a radio frequency transceiver that includes at least two antennae and a medium access control device that includes a link adaptation module. The link adaptation module dynamically adjusts a bandwidth of the wireless communications device based on a transmission error rate and a correlation measurement at a remote wireless communications device. A transmission error module receives the transmission error rate from the remote wireless communications device and generates a transmission error control signal. A signal correlation module receives the correlation measurement from the remote wireless communication device and generates a signal correlation control signal. The link adaptation module adjusts at least one of the bandwidth and an amount of spatial multiplexing that is executed by a space-time processor based on the transmission error control signal and the signal correlation control signal.